

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004

REMARKS

Claims 1-28 remain pending in the application. Claims 1-17 and 23-28 stand rejected. Claims 18-22 were objected to for depending from rejected base claims. Applicants respectfully traverse the rejections of claims 1-17 and 23-28 and request reconsideration in view of the following remarks.

Applicants would like to thank the Examiner, Tara Mayo, for the telephone interview conducted with Applicants' representative, David W. Dorton, on November 2, 2004. During the interview, the rejected claims were discussed, particularly independent claims 1, 23 and 24. Applicants' representative pointed out, and the Examiner agreed, that the references of record do not teach or suggest reciprocating an infant support "in a substantially vertical direction," as recited in claims 1, 23 and 24. At the conclusion of the interview, the Examiner indicated that claims 1 and 23 were likely allowable over the references of record, and that claims 24-28 would be reconsidered upon receiving a written response setting forth the remarks discussed during the interview.

Claims Rejected under 35 U.S.C. §112

Claim 15 stands rejected under 35 U.S.C. §112, second paragraph, with regard to the recitation of "a scissor mechanism." Applicants respectfully traverse this rejection of claim 15 and assert that claim 15 sets forth the claimed invention with a reasonable degree of clarity and particularity that would be understood by those of

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004

ordinary skill in the art in view of the Specification. (See MPEP §2173.02.) In particular, Applicants assert that persons skilled in the mechanical arts would understand what is meant by the phrase "a scissor mechanism." Such mechanisms are referenced, for example, in issued U.S. Patent Nos. 6,679,479 and 6,315,095. For at least these reasons, Applicants respectfully request that the rejection of claim 15 under 35 U.S.C. §112, second paragraph, be withdrawn.

Claims Rejected under 35 U.S.C. §103

Claims 1-14, 16, 17 and 23-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,911,499 to Meeker in view of U.S. Patent No. 4,681,096 to Cuervo. Claims 1, 23 and 24 are the only independent claims of this rejected group. Claims 1 and 23 are directed to apparatus for reciprocating an infant support. The apparatus of claim 1 comprises:

a frame;

a receiving member configured to receive the infant support, said receiving member movable relative to said frame for reciprocation in a substantially vertical direction; and

a motive device coupled to said receiving member and configured to reciprocate said receiving member relative to said frame with a displacement in the range of approximately 2 inches to approximately 6 inches at a frequency in the range of approximately 30 cycles per minute to approximately 90 cycles per minute.

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004

Claim 3 recites similar language. Claim 24 is directed to a method of soothing an infant, comprising:

placing the infant on an infant support; and

reciprocating the infant support with a first substantially vertical motion having an amplitude in the range of approximately 2 inches to approximately 6 inches at a frequency in the range of approximately 30 cycles per minute to approximately 90 cycles per minute.

Applicants respectfully traverse the rejections of claims 1, 23 and 24 because Meeker does not teach or suggest all elements of these claims, and the combination with Cuervo does not cure these deficiencies. Specifically, Meeker does not teach or suggest a receiving member that is moveable for reciprocation in a "substantially vertical direction" or reciprocating an infant support "with a first substantially vertical motion." Rather, Meeker is directed to a rocking mechanism that imparts rocking motion to an infant support. (See, e.g., Meeker at column 2, lines 28-30; column 3, lines 4-6; column 4, lines 49-51 and 66-68; and column 5, lines 62-63.) This rocking motion of Meeker is not the same as the claimed "reciprocation in a substantially vertical direction," as defined in the Application at page 7, paragraph 30. Moreover, the Office Action admits that Meeker does not teach or suggest a motive device "configured to reciprocate said receiving member relative to said frame with a displacement in the range of approximately 2 inches to approximately 6 inches in at a frequency in the range of approximately 30 cycles per minute to approximately 90

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004
cycles per minute."

Cuervo does not teach or suggest a modification of Meeker that cures these deficiencies. Specifically, Cuervo is directed to a method and apparatus for soothing infants by displacing an infant support between 1/8-inch and 1/100-inch, at a frequency between 25 and 43 cycles per second (1500 to 2580 cycles per minute). (See Cuervo at column 5, lines 48-56.) Accordingly, the displacement taught by Cuervo is much smaller than the claimed displacement, and the frequency taught by Cuervo is much greater than the claimed frequency.

In the background section of Cuervo, referred to in the Office Action, a rocking motion having a head-to-toe rocking displacement of 3 inches at a frequency of 30 or 60 cycles per minute is discussed. (See Cuervo at column 2, lines 9-14.) Again, this particular motion is a rocking motion, not a vertical motion as required by the claims.

Applicants further traverse the rejection of claim 23 over Meeker in view of Cuervo because neither Meeker nor Cuervo teaches or suggests "a counterbalance mechanism operatively coupled to said electric motor, said counterbalance mechanism configured to provide a substantially uniform load on said electric motor while said electric motor reciprocates said receiving member," as recited in claim 23. Rather, drive bar 106 of Meeker, identified in the Office Action, is coupled to motor 74 to impart motion to (or "drive") platform 14. (See Meeker at column 6, lines 15-35.) The full range of motion of drive bar 106 is absorbed through leaf spring 112, not by a

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004

counterbalance mechanism. For at least these reasons, Applicants respectfully request that the rejections of claims 1, 23 and 24 be withdrawn.

Claims 2-14, 16 and 17 each depend from independent claim 1, and claims 25-28 each depend from independent claim 24. Accordingly, claims 2-14, 16, 17 and 25-28 are in condition for allowance for at least the reasons stated above for claims 1 and 24. Applicants further traverse the rejection of claim 9 because it would not have been obvious to substitute a spring-wound mechanism for leaf spring 112 in the apparatus of Meeker, as alleged in the Office Action. Specifically, leaf spring 112 is intended to absorb the driving force from driving member 106. Accordingly, the leaf spring 112 is not a part of the motive device, and is therefore not a functional equivalent of the recited spring-wound mechanism, as alleged in the Office Action. Even if a spring-wound mechanism were substituted for leaf spring 112, the claim language would not be met because the allegedly modified component is not part of the motive device.

Applicants further traverse the rejections of claims 11 and 12 because leaf spring 112 of Meeker is not a part of a counterbalance mechanism, as discussed above with respect to claim 23. Rather, spring 112 of Meeker acts to absorb the motion of drive bar 106; it does not counterbalance forces. (See Meeker at column 6, lines 27-34.) The combination of Meeker with Cuervo does not cure this deficiency.

Applicants further traverse the rejection of claim 14 because neither Meeker nor Cuervo teaches or suggests "a reciprocating assembly coupled to said

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004

receiving member and configured to constrain movement of said receiving member relative to said frame such that said infant support moves in a substantially vertical direction," as recited in claim 14. As discussed above, Meeker does not constrain motion in a substantially vertical direction, but rather imparts a rocking motion to an infant support.

Applicants further traverse the rejection of claim 16 because neither Meeker nor Cuervo teaches or suggests "a motor having an output shaft coupled to said receiving member by a first crank member, whereby a rotation of said first crank member about said output shaft reciprocates said receiving member," as recited in claim 16. Rather, reference numeral 82 referred to in the Office Action is the output shaft of a motor, not a crank member. In this regard, Applicants assert that a "crank" is a term of art which would be understood by persons skilled in the art to be different from the asserted output shaft 82.

Applicants further traverse the rejection of claim 17 because the combination of Meeker and Cuervo does not teach or suggest "a counterbalance mechanism operatively coupled to said motor, said counterbalance mechanism configured to provide a substantially uniform load on said motor while said motor reciprocates said receiving member," as recited in claim 17. As discussed above with respect to claims 11, 12, and 23, Meeker does not teach or suggest a counterbalance mechanism configured to provide a uniform load on a motor. Cuervo does not teach or suggest a modification of Meeker that cures this deficiency.

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004

Applicants further traverse the rejections of claims 24-28 as reciting methods inherent to the use of the devices of Meeker and Cuervo. As discussed above, neither Meeker nor Cuervo teaches or suggests reciprocating an infant support with an amplitude in the range of approximately 2 to 6 inches, and with a frequency in the range of approximately 30 to 90 cycles per minute. Moreover, neither Meeker nor Cuervo teaches or suggests counterbalancing static and dynamic loads of the infant support, as recited in claims 25 and 27, or superposing a second vertical motion on a first vertical motion, as recited in claim 26. Rather, Meeker discloses that leaf spring 112 allows movement of platform 14 to be stopped, or to proceed at a different speed (see Meeker at column 6, lines 37-43). Accordingly, Meeker does not teach or suggest a second vertical motion, or that the second vertical motion is superposed on a first vertical motion.

For at least the reasons set forth above, Applicants respectfully request that the rejections of claims 2-14, 16, 17 and 25-28 be withdrawn.

In view of the foregoing amendments to the claims and remarks given herein, Applicants respectfully believe this case is in condition for allowance and respectfully request allowance of the pending claims. If the Examiner believes any detailed language of the claims requires further discussion, the Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. The Examiner's prompt attention to this matter is appreciated.

Application No. 10/700,611
Amendment dated December 2, 2004
Reply to Office Action of September 2, 2004

Applicants are of the opinion that no additional fee is due as a result of this amendment. If any charges or credits are necessary to complete this communication, please apply them to Deposit Account No. 23-3000.

Respectfully submitted,

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